

We claim:

1. An electroluminescent device, comprising a semi-reflecting structure, a reflecting structure, and a plurality of intermediate layers for light generation, wherein said semi-reflecting structure thickness is chosen to cause destructive optical interference of ambient light reflected thereby, and said intermediate layers have thicknesses chosen to create a microcavity for causing constructive optical interference of light generated therein and approximately 360° phase change of transmitted ambient light passing therethrough from said semi-reflecting structure and reflecting off said reflecting structure, such that said transmitted ambient light is subjected to further destructive optical interference within said semi-reflecting structure.
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2. The electroluminescent device of claim 1, wherein said intermediate layers include a hole-carrier layer and electron-carrier layer with a light generating region at the interface therebetween.
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3. The electroluminescent device of claim 2, wherein said hole-carrier layer comprises TPD and said electron-carrier layer comprises AlQ3.
- 20 4. The electroluminescent device of claim 3, wherein said intermediate layers include a buffer layer of CuPC adjacent said TPD layer.
- 25 5. The electroluminescent device of claim 4, wherein said intermediate layers include a conductive layer of ITO adjacent said CuPC layer.
6. The electroluminescent device of claim 5, wherein said thicknesses of the intermediate layers are as follows: AlQ3 = 200 to 800 Å, TPD = 200 to 500 Å, CuPC = 0 to 500 Å, ITO = 0 to 2500 Å.
- 30 7. The electroluminescent device of claim 1, wherein said semi-reflecting structure comprises at least one layer of Al, SiO₂ and Cr.